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ABSTRACT OF THE DISCLOSURE

A method for the control and regulation of a transmission brake in an automatic transmission with a countershaft. The transmission brake arrests a transmission input shaft or a countershaft during an upshifting procedure. The speed of rotation (1) of these shafts at the engagement point in time corresponds to the synchronous speed of rotation already established by the transmission output speed of rotation and the ratio of the selected gear stage or approaches this value up to a predetermined tolerance of deviation. The disengagement point in time for the transmission brake is calculated with the aid of the brake rate of change of the countershaft, i.e., the transmission input speed of rotation as well as with the rate of change of the transmission output shaft speed of rotation. The transmission brake is further provided with disengagement, given consideration of lead time, before the calculated disengagement point in time.